

Time Critical Diagnosis—Stroke and STEMI System Implementation
HOSPITAL STEMI WORK GROUP-CRITERIA FOR STEMI CENTER DESIGNATIONS
April 7, 2009

CRITERIA	LEVEL I	LEVEL II	LEVEL III	LEVEL IV
I. STEMI Center Volumes:				
1. Total number of elective Percutaneous Coronary Interventions (PCI) /year/ center	400	200		
2. Primary PCI (PPCI)/Year/center	> 49	> 36		
II. STEMI Center Hospital Capabilities:				
1) STEMI Program Staffing				
a) STEMI <u>Medical Director</u> -board certified, job description, org chart showing relation to other departments, oversee staffing, assure appropriate training CEUs for staff and CMEs/year for physicians,	X	X	X	X
b) STEMI <u>Program Manager</u> (RN or qualified individual)	X	X	X	X
c) <u>STEMI Team</u>				
i. Physician experienced in diagnosing and treating cardiovascular disease and STEMI (available 24/7)	X (PA)	X	X (IA)	X (IA)
ii. Another health care professional credentialed in STEMI as determined by hospital (available 24/7)	X	X	X	X
iii. Cardiology outreach services available to other facilities	X			
d) Staff representation from hospital administration, EMS, ED, ICU, pharmacy, cardiac cath lab, CVD-MI unit, rehabilitation, discharge planning, laboratory, nutrition services	X	X		
2) Availability of hospital departments/services to support STEMI care				
a) Emergency Department-24/7	X	X	X	X
b) ED physician-24/7	IH	IH	IH	IA
c) Intensive Care Unit	X	X	X	
d) Cardiology expertise and support for advance treatments	X			
e) Surgery--Cardiac surgery back-up 24/7	X IA			
f) Inpatient area for acute care	X	X	X	
g) General standards for staffing and competencies of these areas (not sure what this means—propose defining, leave out or addressed in other sections)	X	X	X	X
g) One-call point of access to cardiology services for 24-hour phone consults	X	X		

IH-In house, PA-Promptly available (within 20 min.), IA-Immediately available (within 30 min.)

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3) Time Frame for availability of services (IH = in house; IA = 20 minutes; PA = 30 minutes) — combine with above				
a) 24/7 Emergency Department with physician access	IH	IH	IH	IA
h) 24/7 CATH Lab, angiography and interventional capabilities available	PA	PA		
i) 24/7 Coronary Artery Bypass Graft (CABG)	PA			
j) Core STEMI Team Members	PA	PA	PA	IA
k) 24/7 Clinical Laboratory to provide necessary testing and results	X	X	X	X
l) One call activation for cath lab (policy and protocol)	X	X		
m) One call access to transfer STEMI (policy and protocol)			X	X
n) Access to cardiac rehab	X	X	X	
o) 24/7 Surgical Backup (regs will define specific equip needed)	X			
III. Hospital protocol for pre-hospital and STEMI Team Communication				
1. EKG, system for communication between hospital and EMS staff 24/7, link to EM system that provides hospital diversion status	X	X	X	X
2. Mechanism in place for activation of Cardiac Cath lab team at time of EMS STEMI identification. One call activation for cath lab	X	X	X	X
IV. Hospital policy and protocol for care and coordination of STEMI patient				
1. Accept all STEMI transfers	X	X		
2. Formal Written agreement Level I/Level II to				
a. With other facilities to accept complex patients	X	X		
b. With Level I and II centers to transfer STEMI patients when indicated		X	X	X
3. A rapid transfer protocol in place with higher level of STEMI care		X	X	X
4. A hospital diversion protocol must be maintained in accordance with state regulations... (In current trauma regulations. This will need to be validated with legal teams and risk managers.)	X	X	X	X
5. Agree to accept all STEMI patients appropriate for the level of care provided at the hospital, regardless of race, sex, creed or ability to pay	X	X	X	X
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6. Staff maintain core competencies in STEMI (see annual core competencies.)	X	X	X	X
7. Protocol for cardiac rehabilitation—Phase I is in-house	X	X		
V. Hospital capacity to support STEMI patient discharge plan				
Arrange discharge plan for	X	X		
1) Provision of cardiac rehabilitation post discharge and document.				
2) Transition back to care and oversight by Primary Care Physician or rehabilitation and/or long-term care facility, if needed (coordinate with existing procedures)				
3) Provision of repatriation to community hospital if indicated				
4) Timely feedback (recommend within 72 hours of discharge) for sending and receiving facilities/EMS providers.	X	X		
VI. Annual Core Competencies:				
1. RN --annual STEMI core competencies for ED, ICU, Cath Lab and Telemetry	X	X	X	X
2. STEMI Medical Director CEU hours – 10 ACS-related hours in 3 years	X	X	X	X
3. Annual STEMI core competencies for ED Physicians and advanced practice providers	X	X	X	X
4. Annual STEMI core competencies for Cath Lab staff	X	X		
5. STEMI Program Manager association with formal quality improvement program related to STEMI	X	X	X	x
6. Interventional Cardiologist (75+ PCI/phys/year recommended)	X	X		
VII. Community Education:				
1. Public education program for STEMI signs/symptoms, emergency transport, STEMI treatment and center service availability	X	X	X	
2. Ability to collect and report data to STEMI registry & DHSS	X	X	X	X

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3.	One call point of access to cardiology services outreach program for 24 hour phone consults (moved to II.)	x	x		
VIII. Research: Pick preferred language:					
1.	The STEMI medical director shall participate in the STEMI center's research and publication projects Institution will conduct or participate in research study that is under auspices of Institutional Review Board oversight either at that facility or cooperative facility.				
2.	The hospital and its staff shall support a research program in STEMI as evidenced by any of the following, including but not limited to: a. Publications in a peer review journal b. Reports of findings presented at regional and/or national conferences c. Receipt of grants for study of STEMI care d. Production of evidenced based reviews.				
3.	The hospital shall agree to cooperate and participate with the DHSS in conducting epidemiological studies and individual case studies for the purpose of developing STEMI prevention programs.	x	x		x
IX.	Participate in Quarterly regional STEMI conferences	x	x		x
X. Performance Metrics:					
1.	PCI within 60 +/- 30 minutes of arrival (75-80% of time) (need data set to evaluate appropriate x% of time; may need to consider timeframe for this criteria; time is based on first medical contact time. Challenge in view of current data based on D2B time. Must evolve metric to reflect time from symptoms to time to definitive care.) Device or balloon within 90 +/- 30 min from first medical contact facility arrival or field EKG STEMI diagnosis (75% of time)	x x			
2.	Patient presentation—do different metrics based on whether patient is walk-in, transfer, versus EMS transport, time for EMS transfers from one hospital to higher level when needed. (Starting point for next meeting discussion)				
3.	Litics within 30 minutes of first medical contact or arrival (75-80% of time)		x		x
4.	Formal STEMI/AMI CQI process	x	x		x

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5.	Immediate (define) feedback to the transfer hospital and EMS	x			
6.	Competencies for the practitioner, nurse and physician	x	x		x
7.	State Registry reporting	x	x		x
8.	ACC guidelines/registry	x	x		
9.	Quality vs. what for EMS to decide which place to go (...leave for protocols discussion)				
10.	Risk adjusted mortality	x	x		x
XI. Financing					
Further discussion needed on reimbursement issues and assurances for adequate financing of agencies and facilities within STEMI-TCD system					

